Amendments to the claims

This listing of claims will replace all prior versions, and listings, of claims in the application. Please cancel claim 76 and amend claim 1 as follows:

WHAT IS CLAIMED IS:

1. (currently amended) A compound selected from Formula Formulae II, IV, V, VII-IX and XI

or a pharmaceutically acceptable salt thereof, wherein

X is C (carbon);

 R^1 is selected from H, C_1 - C_6 alkyl, C_3 - C_{10} cycloalkyl, (C_3 - C_{10} cycloalkyl) C_1 - C_6 alkyl, C_2 - C_6 alkynyl, cyano, halo, C_1 - C_6 haloalkyl, OR^7 , C_1 - C_6 alkyl- OR^7 ; C_1 - C_6

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cyanoalkyl, NR⁸R⁹, C₁-C₆ alkyl-NR⁸R⁹;

 R^2 is H,

 C_1 - C_6 alkyl which optionally forms a C_3 - C_6 aminocarbocycle or a C_2 - C_5 aminoheterocycle with A or B, each optionally substituted at each occurrence with R^7 , C_3 - C_{10} cycloalkyl, or

(C₃-C₁₀ cycloalkyl) C₁-C₆ alkyl;

or R² and R⁶ jointly with the 2 nitrogen atoms to which they are bound a C₂-C₅ aminoheterocycle optionally substituted with R⁷;

- A is $(CH_2)_m$, where m is 1,2 or 3 and is optionally mono- or di-substituted on each occurrence with C_1 - C_6 alkyl, C_3 - C_{10} cycloalkyl, $(C_3$ - C_{10} cycloalkyl) C_1 - C_6 alkyl, C_1 - C_6 alkenyl, C_1 - C_6 alkynyl, cyano, halo, C_1 - C_6 haloalkyl, OR^7 , C_1 - C_6 alkyl- OR^7 ; C_1 - C_6 cyanoalkyl, NR^8R^9 , C_1 - C_6 alkyl- NR^8R^9 , or
- A and B jointly form a C₃-C₆ carbocycle, optionally substituted at each occurrence with R⁷ or,

A and R² jointly form a C₃-C₆ aminocarbocycle or a C₂-C₅ aminoheterocycle optionally substituted at each carbon occurrence with R⁷;

- B is $(CH_2)_n$, where n is 1,2 or 3 and is optionally mono- or di-substituted on each carbon atom with C_1 - C_6 alkyl, C_3 - C_{10} cycloalkyl, $(C_3$ - C_{10} cycloalkyl) C_1 - C_6 alkyl, C_2 - C_6 alkenyl, C_2 - C_6 alkynyl, cyano, halo, C_1 - C_6 haloalkyl, OR^7 , C_1 - C_6 alkyl- OR^7 ; C_1 - C_6 cyanoalkyl, NR^8R^9 , C_1 - C_6 alkyl- NR^8R^9 , or
- B and R^2 jointly form a C_3 - C_6 aminocarbocycle or a C_2 - C_5 aminoheterocycle optionally substituted at each <u>carbon</u> occurrence with R^7 ;
- R³ and R¹⁶ are independently selected at each occurrence from H, C₁-C₆ alkyl, C₃-C₁₀ cycloalkyl, (C₃-C₁₀ cycloalkyl) C₁-C₆ alkyl, C₁-C₆ alkenyl, C₂-C₆ alkynyl, cyano, halogen, C₁-C₆ haloalkyl, OR⁷, C₁-C₆ alkyl-OR⁷, C₁-C₆ cyanoalkyl, NR⁸R⁹, C₁-C₆ alkyl-NR⁸R⁹;

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R⁴ is selected from aryl or heteroaryl, each optionally substituted with 1 to 5 substituents independently selected at each occurrence from C₁-C₆ alkyl, C₃-C₁₀ cycloalkyl, C₃-C₁₀ cycloalkyl, C₁-C₆ alkyl, C₁-C₆ alkenyl, halogen, C₁-C₆ haloalkyl, trifluromethylsulfonyl, OR⁷, C₁-C₆ alkyl-OR⁷, NR⁸R⁹, C₁-C₆ alkyl-NR⁸R⁹, CONR⁸R⁹, C₁-C₆ alkyl-CONR⁸R⁹, COOR⁷, C₁-C₆ alkyl-COOR⁷, CN, C₁-C₆ alkyl-CN, SO₂NR⁸R⁹, SO₂R⁷, aryl, heteroaryl, heterocycloalkyl, 3-, 4-, or 5-(2-oxo-1,3-oxazolidinyl), with the proviso that at least one of the positions ortho or para to the point of attachment of the aryl or heteroaryl ring to the heterocyclic core is substituted;

R⁵ is selected from:

C₁-C₆ alkyl, (C₃-C₁₀ cycloalkyl) C₁-C₆ alkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, each of which is substituted with 1 to 5 groups independently selected at each occurrence from halo, C₁-C₂ haloalkyl, OR⁷, cyano, NR⁸R⁹, CONR⁸R⁹, COOR⁷, SO₂NR⁸R⁹, SO₂R⁷, NR¹¹CO R¹², N R¹¹SO₂R⁷;

- C₁-C₆ arylalkyl, C₁-C₆ heteroarylalkyl, C₅-C₈ arylcycloalkyl, or C₅-C₈ heteroarylcycloalkyl, where aryl is phenyl or naphthyl, and heteroaryl is 2-,3-, or 4-pyridyl, 2-, 4- or 5-pyrimidinyl, triazinyl, 1-, 2-, or 4-imidazolyl, 2-, 4-, or 5-oxazolyl, isooxazolyl, indolyl, pyrazolyl, 1-, 3- or 4-triazolyl, 2-triazinyl, 2-pyrazinyl, 2-, or 3-furanyl, 2-, or 3-thienyl, 2-, or 3-benzothienyl, or 1-, 2- or 5-tetrazolyl, each of which is optionally substituted with 1 to 5 substituents independently selected at each occurrence from C₁-C₆ alkyl, C₃-C₁₀ cycloalkyl, C₃-C₁₀ cycloalkyl, C₃-C₁₀ cycloalkyl, C₁-C₆ alkyl, C₁-C₆ alkyl-OR⁷, C₁-C₆ alkyl-NR⁸R⁹, CONR⁸R⁹, COOR⁷, CN, SO₂NR⁸R⁹, SO₂R⁷, aryl, heteroaryl, heterocycloalkyl, 3-, 4-, or 5-(2-oxo-1,3-oxazolidinyl), wherein with the proviso that 2 adjacent alkyl substituents can optionally form together a C₃-C₁₀ cycloalkyl ring, a C₃-C₁₀ cycloalkenyl ring or a heterocycloalkyl ring;
- C₃-C₁₀ cycloalkyl, (C₃-C₁₀ cycloalkyl) C₁-C₆ alkyl, C₃-C₁₀ cycloalkenyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, each of which is optionally with 1 to 6 substituents independently selected at each occurrence from C₁-C₆ alkyl, C₃-C₁₀ cycloalkyl, C₃-C₁₀ cycloalkenyl, (C₃-C₁₀

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cycloalkyl) C₁-C₆ alkyl, C₁-C₆ alkenyl, halogen, C₁-C₆ haloalkyl, OR⁷, NR⁸R⁹, with the proviso that when two OR⁷ or NR⁸R⁹ substituents are geminally located on the same carbon R⁷ is not H and they can form together a C₂-C₄ ketal, oxazoline, oxazolidine, imidazoline, or imidazolidine heterocycle, C₁-C₆ alkyl-OR⁷, C₁-C₆ alkyl-NR⁸R⁹, CONR⁸R⁹, COOR⁷, CN, oxo, hydroximino, C₁-C₆ alkoximino, SO₂NR⁸R⁹, SO₂R⁷, heterocycloalkyl, aryl, heteroaryl, where aryl or heteroaryl is optionally substituted with 1 to 5 substituents independently selected at each occurrence from C₁-C₆ alkyl, C₃-C₁₀ cycloalkyl, C₃-C₁₀ cycloalkyl, C₁-C₆ alkyl, C₁-C₆ alkyl, halogen, C₁-C₆ haloalkyl, trifluromethylsulfonyl, OR⁷, NR⁸R⁹, C₁-C₆ alkyl-OR⁷, C₁-C₆ alkyl-NR⁸R⁹, CONR⁸R⁹, COOR⁷, CN, SO₂NR⁸R⁹, SO₂R⁷, aryl, heteroaryl, heterocycloalkyl, 3-, 4-, or 5-(2-oxo-1,3-oxazolidinyl), wherein with the proviso that 2 adjacent alkyl substituents can optionally form together a C₃-C₁₀ cycloalkyl ring, a C₃-C₁₀ cycloalkenyl ring or a heterocycloalkyl ring;

- aryl or heteroaryl, optionally substituted with 1 to 5 substituents independently selected at each occurrence from halogen, C₁-C₆ alkyl, C₃-C₁₀ cycloalkyl, C₃-C₁₀ cycloalkenyl, (C₃-C₁₀ cycloalkyl) C₁-C₆ alkyl, C₁-C₆ alkenyl, halogen, C₁-C₆ haloalkyl, trifluromethylsulfonyl, OR⁷, NR⁸R⁹, C₁-C₆ alkyl-OR⁷, C₁-C₆ alkyl-NR⁸R⁹, CONR⁸R⁹, COOR⁷, CN, SO₂NR⁸R⁹, SO₂R⁷, aryl, heteroaryl, heterocycloalkyl, 3-, 4-, or 5-(2-oxo-1,3-oxazolidinyl), wherein with the proviso that 2 adjacent alkyl substituents may optionally form together a C₃-C₁₀ cycloalkyl ring, a C₃-C₁₀ cycloalkenyl ring or a heterocycloalkyl ring; or
- 3- or 4-piperidinyl, 3-pyrrolidinyl, 3- or 4- tetrahydropyranyl, 3-tetrahydrofuranyl, 3- or 4-tetrahydropyranyl, 3- or 4-(1,1-dioxo) tetrahydrothiopyranyl, 1-azabicyclo[4.4.0]decyl, 8-azabicyclo[3.2.1]octanyl, norbornyl, quinuclidinyl, each optionally substituted with 1 to 5 substituents independently selected at each occurrence from R⁷, C₁-C₆ alkyl-OR⁷, C₁-C₆ alkyl-NR⁸R⁹, CONR⁸R⁹, COOR⁷;
- R⁶ is selected from H, C₁-C₆ alkyl, C₃-C₁₀ cycloalkyl, (C₃-C₁₀ cycloalkyl) C₁-C₆ alkyl, C₂-C₄ alkenyl, C₁-C₆ arylalkyl, C₁-C₆ heteroarylalkyl where aryl or heteroaryl are optionally substituted with 1 to 5 substituents independently selected at each occurrence from halogen, C₁-C₆ haloalkyl, OR¹³, NR⁸R⁹, C₁-C₆ alkyl-OR¹³, C₁-C₆ alkyl-NR⁸R⁹,

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CONR⁸R⁹, COOR⁷, CN, SO₂NR⁸R⁹, SO₂R⁷,

or R^6 and R^2 , as mentioned above, jointly form, with 2 nitrogen atoms to which they are bound a C_2 - C_5 aminoheterocycle optionally substituted at each position with R^7 ;

 R^7 is H, C_1 - C_6 alkyl, C_3 - C_{10} cycloalkyl, C_3 - C_{10} cycloalkenyl, (C_3 - C_{10} cycloalkyl) C_1 - C_6 alkyl, C_1 - C_3 haloalkyl,

or heterocycloalkyl, C₁-C₈ alkylsulfonyl, arylsulfonyl, heteroarylsulfonyl, C₁-C₈ alkanoyl, aroyl, heteroaroyl, aryl, heteroaryl, C₁-C₆ arylalkyl or C₁-C₆ heteroarylalkyl each optionally substituted with 1 to 5 substituents independently selected at each occurrence from halogen, C₁-C₆ haloalkyl, OR¹³, NR⁸R⁹, C₁-C₆ alkyl-OR¹³, C₁-C₆ alkyl-NR⁸R⁹, CONR⁸R⁹, COOR¹³, CN, SO₂NR⁸R⁹, and SO₂R¹³, with the proviso that when R⁷ is SO₂R¹³, R¹³ cannot be H;

R⁸ and R⁹ are independently selected at each occurrence from H, C₁-C₆ alkyl, C₃-C₁₀ cycloalkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, heterocycloalkyl, C₁-C₈ alkanoyl, aroyl, heteroaroyl, aryl, heteroaryl, C₁-C₆ arylalkyl or C₁-C₆ heteroarylalkyl, or R⁸ and R⁹, taken together, can form a C₃-C₆ aminocarbocycle or a C₂-C₅ aminoheterocycle each optionally substituted at each occurrence with C₁-C₆ alkyl, C₃-C₁₀ cycloalkyl, C₃-C₁₀ cycloalkyl, C₃-C₁₀ cycloalkyl, C₁-C₆ alkyl, C₁-C₆ alkyl, or heterocycloalkyl, C₁-C₈ alkylsulfonyl, arylsulfonyl, heteroarylsulfonyl, C₁-C₆ heteroarylalkyl; alkanoyl, aroyl, heteroaroyl, aryl, heteroaryl, C₁-C₆ arylalkyl or C₁-C₆ heteroarylalkyl;

R¹¹ is selected from H, C₁-C₆ alkyl, C₃-C₁₀ cycloalkyl, (C₃-C₁₀ cycloalkyl) C₁-C₆ alkyl;

R¹² is selected from H, aryl, heteroaryl, C₁-C₆ alkyl, C₃-C₁₀ cycloalkyl, (C₃-C₁₀ cycloalkyl) C₁-C₆ alkyl, optionally substituted with OR⁷, NR⁸R⁹, C₃-C₆ aminocarbocycle, or C₂-C₅ aminoheterocycle;

R¹³ is independently selected at each occurrence from H, C₁-C₆ alkyl, C₃-C₁₀ cycloalkyl, (C₃-

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 C_{10} cycloalkyl) C_1 - C_6 alkyl, C_2 - C_6 alkenyl, C_2 - C_6 alkynyl, C_1 - C_6 haloalkyl, with the proviso that for $SO_2NR^8R^9$, SO_2R^{13} , R^{13} cannot be H;

- R^{14} -is H, C_1 - C_6 -alkyl, C_3 - C_{10} -cycloalkyl, $(C_3$ - C_{10} -cycloalkyl) C_1 - C_6 -alkyl, C_2 - C_4 -alkenyl, C_2 - C_4 -alkenyl, C_2 - C_4 -alkynyl, halo, or CN; and
- R^{15} is selected at each occurrence from H, C_1 - C_6 alkyl, C_3 - C_{10} cycloalkyl, (C_3 - C_{10} cycloalkyl) C_1 - C_6 alkyl, C_2 - C_6 alkynyl, C_2 - C_6 alkyl- OR^7 , C_2 - C_6 cyanoalkyl, C_2 - C_6 alkyl- NR^8R^9 .
- 2-91. (canceled)